

Amendments to the Claims

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-10. (Canceled).

11. (Currently Amended) The sensor according to claim ~~[[10]]~~ 30, wherein the first measuring electrode is substantially composed of mixed oxides with a composition of one of TiNiNbO_x and FeNiMnO_4 .

12. (Currently Amended) The sensor according to claim ~~[[10]]~~ 30, wherein the metal oxide component is at least one of CeO_2 and Mn_2O_3 .

13. (Currently Amended) The sensor according to claim ~~[[10]]~~ 30, wherein the first measuring electrode is a mixed potential electrode and ~~further includes a metal~~ the metallic component ~~[[that]]~~ is at least one of gold and silver, ~~in addition to the cermet~~.

14. (Canceled).

15. (Currently Amended) The sensor according to claim ~~[[14]]~~ 30, wherein the porous layer contains at least one of promoters and catalysts at least in some areas.

16-17. (Canceled).

18. (Currently Amended) The sensor according to claim ~~[[17]]~~ 42, wherein the one of the measuring electrodes facing the gas mixture is the first measuring electrode.

19. (Currently Amended) The sensor according to claim ~~[[10]]~~ 30, wherein a potential of $\lambda = 1$ is applied when a λ value of < 1 is present in the gas mixture, the potential is applied at the first measuring electrode.

20-22. (Canceled)

23. (Currently Amended) The sensor according to claim ~~[[10]]~~ 30, wherein the metal oxide component is at least one of CeO₂ and Mn₂O₃, and the first measuring electrode is a mixed potential electrode and ~~further includes a metal~~ the metallic component ~~[[that]]~~ is at least one of gold and silver, ~~in addition to the cermet.~~

24. (Canceled)

25. (Currently Amended) The sensor according to claim ~~[[24]]~~ 30, wherein the porous layer contains at least one of promoters and catalysts at least in some areas.

26. (Canceled)

27. (Previously Presented) The sensor according to claim 23, further comprising:

a reference electrode exposed to a reference gas; and

at least one layer composed of an oxygen conducting solid electrolyte situated between the reference electrode and the measuring electrodes.

28. (Canceled).

29. (Currently Amended) The sensor according to claim 23, further comprising ~~[[a]]~~ the porous layer extending between the first and second measuring electrodes, one of the first and second measuring electrodes being situated on a side of the sensor facing the gas mixture, another of the measuring electrodes being situated between a reference electrode and the one of the measuring electrodes facing the gas mixture, ~~the solid electrolyte being integrated into the porous layer.~~

30. (New) A sensor for determining a concentration of gas components in a gas mixture, comprising:

a first measuring electrode having substantially no catalytic effect on an establishment of an equilibrium in the gas mixture when exposed to the gas mixture, the first measuring electrode including a cermet electrode with at least one metal oxide component, the at least one metal oxide component being capable of reversible incorporation of oxygen;

a second measuring electrode catalyzing an establishment of an equilibrium in the gas mixture when exposed to the gas mixture;

a solid electrolyte that is conductive for oxygen ions situated between the first and second measuring electrodes; and

a porous layer, the solid electrolyte being integrated into the porous layer;

wherein the cermet electrode includes a metallic component, and

wherein the sensor is able to determine a concentration of an oxidizable component in the gas mixture.

31. (New) A sensor for determining a concentration of gas components in a gas mixture, comprising:

a first measuring electrode having substantially no catalytic effect on an establishment of an equilibrium in the gas mixture when exposed to the gas mixture, the first measuring electrode including a cermet electrode with at least one metal oxide component, the at least one metal oxide component being capable of reversible incorporation of oxygen;

a second measuring electrode catalyzing an establishment of an equilibrium in the gas mixture when exposed to the gas mixture;

a solid electrolyte that is conductive for oxygen ions situated between the first and second measuring electrodes;

a reference electrode exposed to a reference gas; and

at least one layer composed of an oxygen conducting solid electrolyte situated between the reference electrode and the measuring electrodes;

wherein the cermet electrode includes a metallic component, and

wherein the sensor is able to determine a concentration of an oxidizable component in the gas mixture.

32. (New) The sensor according to claim 31, wherein the first measuring electrode is substantially composed of mixed oxides with a composition of one of TiNiNbO_x and FeNiMnO_4 .

33. (New) The sensor according to claim 31, wherein the metal oxide component is at least one of CeO_2 and Mn_2O_3 .

34. (New) The sensor according to claim 31, wherein the first measuring electrode is a mixed potential electrode and the metallic component is at least one of gold and silver.

35. (New) The sensor according to claim 31, wherein a potential of $\lambda = 1$ is applied when a λ value of < 1 is present in the gas mixture, the potential is applied at the first measuring electrode.

36. (New) The sensor according to claim 31, wherein the metal oxide component is at least one of CeO_2 and Mn_2O_3 , and the first measuring electrode is a mixed potential electrode and the metallic component is at least one of gold and silver.

37. (New) The sensor according to claim 36, further comprising a porous layer, the solid electrolyte being integrated into the porous layer, wherein the porous layer contains at least one of promoters and catalysts at least in some areas.

38. (New) The sensor according to claim 31, further comprising a porous layer extending between the first and second measuring electrodes, one of the first and second measuring electrodes being situated on a side of the sensor facing the gas mixture, another of the measuring electrodes being situated between a reference electrode and the one of the measuring electrodes facing the gas mixture, the solid electrolyte being integrated into the porous layer.

39. (New) A sensor for determining a concentration of gas components in a gas mixture, comprising:

a first measuring electrode having substantially no catalytic effect on an establishment of an equilibrium in the gas mixture when exposed to the gas mixture, the first measuring electrode including a cermet electrode with at least one metal oxide component, the at least one metal oxide component being capable of reversible incorporation of oxygen;

a second measuring electrode catalyzing an establishment of an equilibrium in the gas mixture when exposed to the gas mixture;

a solid electrolyte that is conductive for oxygen ions situated between the first and second measuring electrodes; and

a porous layer extending between the first and second measuring electrodes, one of the first and second measuring electrodes being situated on a side of the sensor facing the gas mixture, another of the measuring electrodes being situated between a reference electrode and the one of the measuring electrodes facing the gas mixture, the solid electrolyte being integrated into the porous layer;

wherein the cermet electrode includes a metallic component, and

wherein the sensor is able to determine a concentration of an oxidizable component in the gas mixture.

40. (New) The sensor according to claim 39, wherein the first measuring electrode is substantially composed of mixed oxides with a composition of one of TiNiNbO_x and FeNiMnO_4 .

41. (New) The sensor according to claim 39, wherein the metal oxide component is at least one of CeO_2 and Mn_2O_3 .

42. (New) The sensor according to claim 39, wherein the first measuring electrode is a mixed potential electrode and the metallic component is at least one of gold and silver.

43. (New) The sensor according to claim 39, wherein a potential of $\lambda = 1$ is applied when a λ value of < 1 is present in the gas mixture, the potential is applied at the first measuring electrode.

44. (New) The sensor according to claim 39, wherein the metal oxide component is at least one of CeO_2 and Mn_2O_3 , and the first measuring electrode is a mixed potential electrode and the metallic component that is at least one of gold and silver.

45. (New) The sensor according to claim 44, wherein the porous layer contains at least one of promoters and catalysts at least in some areas.